

REMARKS

Claims 11-19 are currently pending. By the amendment claims 11 and 19 have been amended. No new matter has been added as a result of the present amendments. Support for the added clarifying language that the "at least one reduction stand ..." is found in the Specification of the application as originally filed at page 3, paragraph [0004] wherein it is disclosed that the at least one reduction stand for reducing the thickness of the metal strand is arranged downstream of the cooling device. This disclosure was carried over in the Substitute Specification in paragraph [0003] on page 3, lines 1-4; and further is illustrated in Figure 1. See also paragraph [0014].

On the merits, the Examiner has rejected claims 11-19 under 35 U.S.C. §103(a) as obvious over Di Giusto et al. (U.S. Patent No. 5,488,987) in view of Welker et al. (U.S. Patent No. 5,988,259). The Examiner's arguments in support of the rejection are set forth in item 3 on pages 2-3 of the Official Action, and not herein repeated. Applicants respectfully traverse the grounds for rejection.

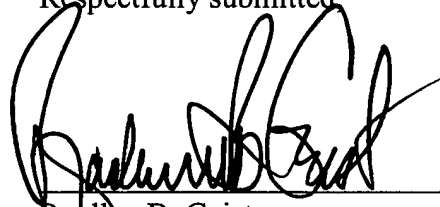
The Examiner's argument that one skilled in the art would look to Welker et al. to supply the motivation to modify Di Giusto et al. to include what the Examiner acknowledges is missing, i.e. "the use of a temperature and solidification model including a predetermined set solidification boundary between the solidified skin and the liquid core", is a considerable stretch. Welker et al. discloses a cooling model for an extrusion casting system. But Welker et al. fails to teach the use of reduction frames and there is no teaching or suggestion of a reduction of the thickness of a strand in the extrusion

casting system. Welker et al. is exclusively concerned with the exact calculation of a temperature profile. Unlike the present invention, Welker et al. is silent on the complex interrelationships and the cybernetic challenges that may arise during the thickness reduction in an extrusion casting system. Accordingly, the Applicants do not believe a skilled artisan would be motivated to consider the teaching of Welker et al. to be relevant to Di Giusto et al. simply because the invention disclosed in Di Giusto et al. is only relevant in a "pre-rolling" phase, and Welker et al. clearly has nothing to do with "pre-rolling."

Furthermore, and particularly in light of the language that at least one cooling device is located ahead (upstream) of the at least one reduction device, it is clear that Di Giusto et al. only discloses cooling means as "sprayer nozzles" which always follow pairs of rolls. See Figure 1 of the Di Giusto et al. patent ('987). Accordingly, there is no teaching or suggestion to arrange cooling means ahead of the pairs of rolls employed for thickness reduction. Accordingly, Di Giusto et al. would not prompt those skilled in the art to use a cooling means preceding a first reduction frame for the purpose of adjusting the cooling by means of a temperature and solidification model so that the solidification boundary corresponds to a preassigned target solidification boundary at the point where a strand enters the reduction frame. Welker et al. fails also to supply this teaching since Welker et al does not even disclose a reduction frame as such, and has nothing to do with a pre-rolling phase.

In view of the above amendments to claims 11 and 19, and in view of the foregoing remarks, Applicants respectfully seek the Examiner's reconsideration of the pending application, and especially, favorable action thereon.

Respectfully submitted



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